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## Federal Government Spectrum Management

Paralleling the FCC, the NTIA promulgates regulations for the use of the EM spectrum by Federal Government users. These regulations are published in the Manual of Regulations and Procedures for Federal Radio Frequency Management, generally known as the "NTIA Manual." The Manual provides tables of Government allocations, special provisions for Government users, and frequency assignment plans for several frequency bands. The NTIA, with the advice of the IRAC, coordinates all Government spectrum usage. The following paragraphs briefly describe the NTIA structure and organization. The NTIA Manual should be consulted if more in-depth information is desired.

## The NTIA--Structure and Organization

The NTIA was formed within the Department of Commerce as a result of the Reorganization Plan 1 of 1977. Executive Order 12046 implemented the Plan and transferred certain responsibilities given to the President by the Communication Act of 1934 to the Secretary of Commerce. The NTIA is administered by the Assistant Secretary of Commerce for Communications and Information. As the Administrator, he determines policy, directs programs, and is responsible for all activities of NTIA. The following sections summarize the functions and activities of NTIA.

## a. The Deputy Administrator

The Deputy Assistant Secretary for Communications and Information is the Deputy Administrator of NTIA. The Deputy Administrator assists the Administrator in the formulation of policies and in the management and direction of NTIA, and performs the functions of the Administrator in the latter's absence or disability, or in the event of a vacancy in that office.

### b. Office of the Chief Counsel

The Chief Counsel has full responsibility for the development and administration of the NTIA Legal Program. The chief counsel provides legal advice to the Administrator and all components of the NTIA with regard to the powers, duties, and responsibilities of NTIA and its relationship to other Government agencies, Congress, business, industry, and private organizations.

#### c. Office of International Affairs

This office provides the Administrator a broad overview and advice on international telecommunications and information affairs. In performing this function, the office formulates and recommends policy and plans for United States participation in international telecommunications and information activities

This office is also responsible for coordination of NTIA and interdepartmental preparations for United States participation in international telecommunications conferences and negotiations.

d. Office of Policy Coordination and Management

This office assists the Administrator and Deputy Administrator in performing their policy and management responsibilities. In doing so, this office represents the Administrator and Deputy Administrator in the development and implementation of telecommunications and information policies

This office also assists the Administrator and Deputy Administrator in developing program priorities, goals, and objectives

e. Office of Spectrum Management

The Office of Spectrum Management is the principal office in NTIA concerned with spectrum management. The office consists of the:

- Associate and Deputy Associate Administrators
- Director, Spectrum Plans and Policy
- Spectrum Engineering and Analysis Division
- Computer Services Division
- Frequency Assignment and IRAC Administrative Support Division

The Spectrum Engineering and Analysis Division provides the technical engineering support to NTIA for the analysis of national and international spectrum issues. This division provides technical engineering support for participation in international meetings and radio conferences.

There are three branches within this Division:

Spectrum Engineering

Spectrum Analysis

Systems Review

The Spectrum Engineering and the Spectrum Analysis Branches are located in Annapolis, Maryland, while the Systems Review Branch is located in Washington, D.C. A matrix management approach is employed in which Spectrum Engineering and Spectrum Analysis personnel are assigned to tasks according to their expertise and availability. The staff of the Systems Review Branch, however, works exclusively on systems reviews.

Located in Annapolis, the Computer Services Division provides data processing and data base and analysis software support to NTIA. This Division maintains the Government Master File (GMF) and provides automated procedures for analysis and coordination procedures, such as Radio Regulation Appendix 28 calculations.

The Frequency Assignment and IRAC Administrative Support Division assists the NTIA-appointed chairman of the IRAC, and its subcommittees and ad hoc groups, as well as providing the IRAC secretary and ancillary IRAC support services. This Division is responsible for assigning assigning radio frequencies to stations owned and operated by the United States and establishing policies concerning spectrum assignment, allocation, and use.

## The NTIA Spectrum Management Process

# a. Interdepartmental Radio Advisory Committee (IRAC)

Formed on June 1, 1922, the IRAC has a long history of coordinating Federal radio communications requirements. The IRAC serves in an advisory capacity to the Assistant Secretary and reports to the Deputy Associate Administrator, Office of Spectrum Management. Representatives from 20 Government agencies form the membership of the IRAC. Table 1 lists the Federal Government organizations represented on the IRAC. The IRAC activities include performing electromagnetic compatibility analyses, administering frequency assignments for Government radio stations, developing emergency plans for use of the radio spectrum, and planning for international radio conferences.

The functioning of the IRAC is described in Chapter 1 of the NTIA Manual; Chapter 8 details the activities of the NTIA and the IRAC with respect to the procedures associated with assignment and coordination of frequencies, and will not be repeated here. Table 1 is list of the IRAC membership.

#### b. IRAC Internal Mechanisms

The IRAC's substructure consists of the Spectrum Planning Subcommittee (SPS), the Frequency Assignment Subcommittee (FAS), The Technical Subcommittee (TSC), the International Notification Group (ING), and the Secretariat. In addition, the IRAC has from time to time various ad hoc groups.

# Spectrum Planning Subcommittee

The SPS is tasked with various programs related to systems review in accordance with Chapter 10 of the NTIA Manual, and to review information on foreign space systems. The substructure of the SPS consists of the Space Systems Group (SSG) and from time to time various working groups. The SSG was organized to initiate action on international notification and coordination of Government space systems.

## Frequency Assignment Subcommittee

The FAS is tasked with accommodating frequency assignment requests from Federal agencies, subject to approval by the Administrator. The substructure of the FAS consists of the Aeronautical Assignment Group (AAG), the Military Assignment Group (MAG), and from time to time various working groups. The authority to make final disposition of appeals from frequency assignments has been delegated to the Director, Office of Management and Budget (OMB). The FAS is also involved in frequency coordination with Canada and Mexico.

### **Technical Subcommittee**

The TSC is tasked with various programs related to technical aspects of the use of the EM spectrum. The TSC is involved with technical standards and criteria for the operation of Government radio stations. Working groups under the TSC consider specific problems, such as radar design criteria and revisions to the NTIA Manual.

### International Notification Group

The ING responds to ITU questionnaires and other correspondence related to international notification of U.S. frequency assignments. The ING consists of representatives appointed by several member departments and agencies including the Air Force, Army, FAA, FCC, NASA and others. The FCC representative serves as Chairman of the ING.

The IRAC also has ad hoc working groups which address various aspects of spectrum management. These ad hoc groups are activated for a specific purpose and disbanded upon completion of the assigned task. For example, Ad Hoc-134 is the group that prepared the Emergency Readiness Plan described below.

Among its many duties, the Council advises the Secretary of Commerce on radio frequency spectrum allocation and assignment matters and means by which the effectiveness of Federal Government frequency management may be enhanced, and develops proposed United States positions on spectrum matters with respect to ITU Conferences.